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# Results of FY 88 Record of Decision Analysis

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13. Abstract: Transmits results of the draft OERR/OWPE analysis of FY-88 Records of Decision(ROD), and outlines goals based on the analysis to promot e ROD consistency and quality to ensure that the remedial program is conduct ed consistent with the Superfund Amendments and Reauthorization Act(SARA).

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE
OSWER Directive # 9355.3-07

MEMORANDUM

MAY 1 1989

SUBJECT: Results of FY 88 Record of Decision Analysis

FROM: Henry L. Longest II, Director
Office of Emergency and Remedial Response

Bruce M. Diamond, Director
Office of Waste Programs Enforcement

TO: Director, Waste Management Division
Regions I, IV, V, VII, VIII
Director, Emergency and Remedial Response Division
Region II
Director, Hazardous Waste Management Division
Regions III, VI, IX
Director, Hazardous Waste Division
Region X

Purpose:

To transmit the results of the draft OERR/OWPE analysis of FY 88 Records of Decision (RODs) and to outline goals, based on the results of this analysis, which will promote ROD consistency and quality and ensure that the remedial program is being implemented in a manner that is consistent with SARA.

Background:

Over the past several months, the Office of Emergency and Remedial Response (OERR) and the Office of Waste Programs Enforcement (OWPE) have undertaken an analysis of RODs signed during FY 88. The analysis was performed by Regional Coordinators in OERR and OWPE who reviewed 79 of the 152 RODs signed in FY 88. The RODs were selected to ensure a representative sample of fund and enforcement lead RODs. It is important to note that the study was not a review of the remedial decisions made, but rather it was an analysis of whether the RODs adequately documented these decisions in a manner that was consistent with established guidance. In addition, the analysis focused on determining trends in alternatives and selected remedies.

Objective:

The analysis was intended to serve several purposes. First, it expanded on an initial OWPE review of draft RODs performed during the second half of FY 88 which indicated several potential areas for improvement in ROD quality. Second, it was designed to be a tool to help Headquarters and Regional management improve RODs by enabling them to gauge past performance and trends in FY 88 RODs. The information was also compiled for the purpose of strengthening future enforcement actions.

Results and Implementation:

In FY 88, we signed more than twice the number of RODs signed in FY 87 and the number of enforcement lead RODs increased 150%. As data in the accompanying table indicate, these RODs reflect an increase in the selection of treatment based remedies; treatment was used as a principal element of 72% of final source control actions as compared to 61% in FY 87. In addition, 76 of the RODs signed in FY 88 were final RODs which authorize the last action required prior to site deletion from the NPL.

In FY 88, we were incorporating the draft "Guidance on Preparing Superfund Decision Documents" (ROD Guidance) issued March 1988 into RODs. Of the 79 RODs reviewed as part of the FY 88 ROD Analysis, 64 followed the draft ROD Guidance format with no major deviations. This is a significant step toward standardization of our decision documents, a key to achieving consistency. We expect improvement in this area in FY 89 since, unlike in the past, the ROD Guidance has been available during the entire fiscal year.

One of our goals for FY 89 is continued improvement in ROD quality and consistency. RODs that clearly describe remedies and explain the rationale for their selection facilitate all other facets of the remedial process. Equally as important, high quality, nationally consistent RODs clear the way to achieving RD/RA settlements and to taking unilateral enforcement actions.

Results of the FY 88 ROD Analysis will be presented in three sections: ROD documentation, trends in the development of alternatives, and remedy selection. Each section also includes goals, based on the results, to improve ROD consistency and quality and Headquarters initiatives to help achieve these goals in FY 89.

ROD Documentation

Based on the analysis, there are several areas which deserve special attention in preparing and reviewing FY 89 RODs.

Inclusion of the Statutory Determinations. All FY 89 RODs must conclude with a section which discusses how the selected remedy fulfills the four statutory determinations and the preference for treatment as a principal element. EPA's overall rationale for decision making must be included in the discussion of the statutory determination that permanent solutions and treatment to the maximum extent practicable have been used. Approximately half of the RODs reviewed included a well-documented, complete discussion of EPA's rationale for decision making. In the others, there were varying levels of documentation and completeness.

Alternative Analysis and the Nine Criteria. All FY 89 RI/FSs and RODs should use the nine evaluation criteria to analyze alternatives, as nearly 80% of the RODs reviewed did. Specifically, the comparative analysis of alternatives presented in the RI/FS should be included in the ROD, and may be condensed or augmented as necessary. Several of the FY 88 RODs reviewed omitted a comparative analysis or relied exclusively on tables which used symbols (i.e, +,-) to compare alternatives. Such tables are useful as decision aids but alone may not be sufficient to explain EPA's reasons for supporting a particular remedy.

ARARs Identification. A listing of all major ARARs should be included in the discussion of the statutory determination that ARARs have been attained. Additionally, since ARARs will frequently play a role in our decision making at sites, it is important that we list major ARARs in the description of various alternatives in the ROD. As appropriate to the response, this frequently includes RCRA Land Disposal Restrictions and Closure regulations and Safe Drinking Water Act MCLs. 70% of the RODs reviewed listed major ARARs in the description of alternatives. In their review of draft RODs, OWPE observed some tendency to include as ARARs various requirements which are not ARARs. It is important that we differentiate between ARARs and "to be considered" requirements, which are not ARARs. Regions are encouraged to work closely with all EPA Regional program offices and the Office of Regional Counsel, the States, and Headquarters in identifying and screening potential ARARs during the RI/FS.

Documentation of Risk and Cleanup Levels. All RODs must include a section which describes the results of the Baseline Risk Assessment. This section should clearly present the current and potential risk posed by the site.

We must assure there is a potential risk or endangerment to human health or the environment in order to justify remedial action and this must be documented in the ROD. In addition, 61 of the RODs reviewed presented performance standards as part of the description of alternatives or selected remedy. The omission of cleanup goals and the lack of specification of a point of compliance for these goals hinders the transition into design and may adversely impact negotiations for PRP conduct of the selected remedy.

Headquarters is currently committed to several initiatives which will aid us in improving ROD documentation. The ROD Guidance has been revised; an interim final version will be issued in April. Over the next several months, Headquarters staff in OERR and OWPE will conduct one day Region specific ROD Writing Workshops which will be tailored to include those topics which will be useful to a particular Region. Finally, Regional Coordinators in OERR and OWPE continue to review draft RODs and Proposed Plans and provide input to the Regions to help ensure national consistency.

Trends in the Development of Alternatives

As part of the ROD Analysis, we also examined the alternatives which were analyzed in detail and described in the ROD. This was done to determine the trends in the types of alternatives being evaluated in detail. In general, 24 of the RODs reviewed evaluated a range of source control alternatives, from containment through full-scale treatment. This is consistent with our chief goal of effective long-term protection as outlined in the proposed revisions to the National Contingency Plan (NCP).

Another of our goals for FY 89 Feasibility Studies (FSs) and RODs is to generally decrease the number of alternatives being carried through screening and into the detailed analysis of alternatives. On the average, the 50 source control RODs reviewed included 4 treatment alternatives and 3 containment alternatives which were evaluated in detail. The number of alternatives evaluated in detail was as high as 17. One reason for this is the tendency evident in many FSs to develop several alternatives for each area of a site requiring remedial action and to then combine these alternatives into large matrices which include various combinations of these remedies for each area of the site. The large numbers of alternatives in such matrices make it very difficult to do an adequate description and comparison of alternatives. Where appropriate, screen alternatives rigorously to cut down on the work involved in evaluating a large number of alternatives. For large sites with many distinct areas of contamination which are not interrelated, consider evaluating and comparing a limited range of alternatives for each area separately.

At other sites, more rigorous screening will also help to reduce the number of alternatives. When it is obvious that complete containment of waste is not appropriate, this alternative can be eliminated prior to detailed analysis. This is consistent with our expectations, outlined in the proposed revisions to the NCP, that containment may be most appropriate for wastes that pose relatively low long-term threats or where treatment is impracticable.

In addition, we should streamline the number of alternatives evaluated in detail for interim action RODs. Interim actions RODs are an important way to implement the proposed NCP's "bias for action" and as such should be streamlined and limited in scope. An average of 6 alternatives were evaluated in detail in the 11 interim action RODs reviewed. Decreasing this number will streamline these actions as well as reduce our workload as we document our interim action decisions.

The goals outlined above must be met while maintaining our commitment to identifying and evaluating innovative technologies. At present, Headquarters is working on a "Selection of Remedy Guidance" which provides additional clarification of final remedy selection using the balancing criteria. In addition, Regional Coordinator review of FSs will, in part, be focused on streamlining the alternatives being analyzed in detail.

Remedy Selection

Our goal for the selection of remedies is to continue to increase the number and types of innovative technologies being selected. Accordingly, we must increase the use of treatability studies during the RI/FS process. Of the 50 source control RODs reviewed, 4 RODs discussed treatability studies which had been performed during the RI/FS; 15 discussed treatability studies which were planned for RD. In others, treatability studies may have been summarized in the RI/FS or administrative record. 16 of the RODs reviewed incorporated contingency remedies; this may reflect the uncertainties which result from postponing treatability studies to design.

On February 21, 1989, we transmitted OSWER Directive 9355.0-26, "Advancing the Use of Treatment Technologies for Superfund Sites." In it, we summarized Headquarters guidance and activities to encourage and support the use of innovative treatment technologies. In addition to the treatability study clearinghouse and the information transfer program outlined therein, funds will be provided to finance treatability studies during the RI/FS and, where necessary, SPMS targets may be reconsidered to accommodate them.

Conclusion

In conclusion, we must assure that RODs adequately document the Agency's decisions and its rationale for decision making. With continued improvement, we will reach our overall ROD goal of consistent, high quality documents which reflect good decisions based on sound technical analyses necessary to meet the statutory requirements of SARA. Past RODs which do not meet these goals may be supplemented as you deem necessary. If you have any questions on the FY 88 ROD Analysis or this directive, please feel free to contact Russ Wyer at FTS 382-4632 or Lloyd Guerci at FTS 382-4810. Staff members Lisa Carson (OERR, FTS 475-9758) and Bill Eckroade (OWPE, FTS 475-8372) may also be contacted for more information.

cc: Superfund Remedial and Enforcement Branch Chiefs
ARCs Contractors
TES Contractors

# FY 1988 ROD TECHNOLOGY SUMMARY

| SOURCE CONTROL REMEDIATION* | OCCURRENCES | | |
|---|---|---|---|
| | Program | Enforcement | Total |
| Treatment Technology | 48 | 28 | 76 |
| Incineration/Thermal Destruction | 21 | 5 | 26 |
| Solidification/Stabilization | 10 | 8 | 18 |
| Vacuum Extraction | 4 | 6 | 10 |
| Volatilization/Soil Aeration | 4 | 2 | 6 |
| Soil Washing/Flushing | 3 | 3 | 6 |
| Biodegradation/Land Application | 4 | 2 | 6 |
| Other Treatment Technologies | 2 | 2 | 4 |
| Containment Only | 7 | 20 | 27 |
| Onsite | 7 | 17 | 24 |
| Offsite | 0 | 3 | 3 |
| Other Source Control Remedies | 2 | 1 | 3 |
| Temporary Storage | 0 | 1 | 1 |

| NON-SOURCE CONTROL REMEDIATION TECHNOLOGY SELECTIONS* | OCCURRENCES | | |
|---|---|---|---|
| Pump and Treatment | 39 | 38 | 77 |
| Alternate Water Supply | 9 | 4 | 13 |
| Other | 3 | 2 | 5 |
| Leachate Treatment | 0 | 3 | 3 |

* More than one remedy may be associated with a site